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LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER

LEBASSI, AMANUEL

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/590,138
Filing Date: August 22, 2006
Appellant(s): OBERMANN, SEBASTIAN

Sebastian Obermanns
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/12/2011 appealing from the Office action mailed 03/11/2011.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: claims 10-20.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

20040043782	Gupta	4-2004
6987770	Yonge, III	1-2006
5634190	Wiedeman	5-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The same references, Gupta, Yonge III and Wiedeman have been used in the action below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta US 20040043782 in view of Yonge, III. US 6987770 and in further view of Wiedeman et al. US 5634190.

Regarding claim 10, Gupta discloses a method for circuit switch transmission in a self-organizing radio network with at least a first and a second radio coverage area (**paragraph [0009] - first cell having a first base station and a second cell having a second base station**), and at least one mobile communication device for each radio coverage area (**paragraph [00009] -first cell having a first base station and a second cell having a second base station having devices and Fig. 1**). Gupta discloses operating a first central control device in the first radio coverage area and a second central control device in the second radio coverage area, for centrally controlling an assignment of transmission channels assigned to the respective radio coverage area (**see Fig. 1 where Base station 110 is operating under Base station controller 1 therefore first central control device and base station 105 is operating under Base station controller 2 therefore second central control device**). Gupta discloses operating in each of the first and second radio coverage areas mobile communication devices forming intermediate stations for forwarding to the second radio coverage area data originating from the first radio coverage area (**see Fig. 1, and paragraph [0021] - relay stations 125 c and 125 b**) and thereby operating the first central control device to control the transmission channels available to the first radio coverage area, both for transmitting data between the first central control device and the station and for transmitting data between the station and the second central control device (**paragraph [0044]**

where a relay or intermediate device is configured to relay a plurality of messages associated with a plurality of other wireless communication devices along a plurality of adaptive relay paths therefore transmitting data between the intermediate station and the second central control device).

Gupta discloses the communication circuitry may transmit and receive messages that include voice, video and data information but is silent on packet-switched data transmission (**paragraph [0043]**). Yonge teaches packet-switched data transmission (**col. 6, lines 66-67 – packet switched**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Gupta and have it include packet-switched data transmission. The motivation would have been in order to switch channels more efficiently when data is compressed (**paragraph [0003]**).

Gupta discloses a station (**see paragraph [0017] where the message is relayed from communication devices 115a in sequence through the relay coordinators associated with the second and third adaptive wireless communication devices 115b, 115c, respectively, to the first base station 105**) but not an intermediate station. However Wiedeman teaches an intermediate station (**abstract, where a relay station (70) that is positioned within an overlap of at least two satellite coverage areas for relaying a communication from a gateway (18A) associated with a first coverage area to a gateway (18B) associated with a second coverage area**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Gupta and have it include an intermediate station. The motivation would have been in order to enable a ground-based receiver to simultaneously receive a communication signal from and transmit a communication signal through a plurality of satellites whose coverage areas overlap (**col. 1, lines 30-34**).

Regarding claim 11, Yonge teaches transmitting control data appended in the transmission with the first central control device on a separate transmission channel (**col. 3, lines 18-26**).

Regarding claim 12, Yonge teaches wherein the separate transmission channel is an FCH channel (**col. 3, lines 18-25 where the frame forwarding can further include selecting the intermediate station for frame forwarding from among the stations that can communicate with the second station using connection information based on characteristics of a respective first channel connection between each station and the second station and a second channel connection between each station and the first station**).

Regarding claim 13, Yonge teaches if the FCH channel cannot be received by the second central control device, appending with the intermediate

station control data for the second central control device to the data to be forwarded (**col. 3, lines 18-25**)

Regarding claim 14, the combination of above discloses adding to the control data at least one of an address of the second central control device and a format of the data to be forwarded (see above).

Regarding claim 15, Yonge discloses analyzing the control data in the intermediate station (**col. 1, lines 33-37**).

Regarding claim 16, Yonge discloses analyzing the control data in the second central control device (**paragraph [0015]**).

Regarding claim 17, Yonge discloses operating the radio network using central medium access control in accordance with a standard selected from the group consisting of IEEE 802.11 standard, IEEE 802.16, Hiperlan/2, and a standard derived therefrom (**col. 14, lines 57-59**).

Regarding claim 18, Wiedeman teaches an intermediate station configured for carrying out the method (**see Fig. 10**).

Regarding claim 19, Gupta discloses A central control device configured for carrying out the method (**paragraph [0015] and Fig. 1 and claim 16**).

Regarding claim 20, Gupta discloses wherein the intermediate station is part of the first radio coverage area and the second radio coverage area (**paragraph [0021] where a relay device could be in a cell border**).

Regarding claim 20, Wiedeman teaches wherein the intermediate station is part of the first radio coverage area and the second radio coverage area (**abstract and Fig. 6 where the relay station is on the overlapping area of first radio coverage area and the second radio coverage area**).

(10) Response to Argument

TECHNOLOGY BACKGROUND

Current wireless networks are typically Wide Area Networks (WAN) consisting of cellular networks and Wireless Local Area Networks (WLAN) consisting of private enterprise wireless networks such as wireless company LANs and wireless hotspots such as those in coffee shops and Air ports. All the networks have wired infrastructure consisting of base stations or access points that communicate wirelessly with the mobiles and via wire with the main system. The base stations and access points form wireless channels with the mobile

terminals so the terminals can communicate voice and/or data to the system and other mobiles. The current generation of mobile terminals have extra transceivers on them to Mobile terminals could act as repeaters between other terminals and the base stations or access points. Thus the terminals relay voice and or data between cellular base stations and the other mobile terminals. The Channels formed between base stations and mobiles could be circuit switched (dedicated to a mobile) or packet switched (Packets of data and commonly used channels). The type of channels chosen are dependent the chosen Protocol during system design. This purpose of mobiles acting as repeaters may be to reach an area not covered by a given base station or increase the range of a given base station or interconnect radio stations operating at different frequencies. To improve overall system capacity and QoS, especially in a UMTS environment where multiple access interference (MAI) sharply limits performance, the WWAN network could encourage mobile terminals that have a good channel quality state to become intermediate relay gateways to assist those mobile terminals with a poor channel quality state to achieve better system performance. The two-hop-relay WWAN/WLAN architecture could reduce the dead spots in a cell and enhance the user throughput at places where radio signal reception is poor, as well as reduce multiple access interference in adjacent cells. The mobile terminal can directly connect to the cellular base station or connect through the WLAN interface to an intermediate gateway and

use the WWAN cellular interface of the intermediate terminal to relay to the base station.

Summary of Appellant's arguments and Examiner's Stance:

The appellant argues that Gupta in view of Young and Wiedeman reference does not teach that mobile communication devices form the intermediate mobile station between base stations and base stations of different areas.

The examiner disagrees with the applicant's assertion. Gupta in fact teaches that mobile communication devices form the intermediate mobile stations and shows them repeating between different service areas (**see paragraph [0017], and figure 1 where the message is relayed from communication devices 115a in sequence through the relay coordinators associated with the second and third adaptive wireless communication devices 115b, 115c, respectively, to the first base station 105 and finally the message is then appropriately directed by the first base station 105**). Gupta in fact discloses relay stations which are intermediate stations. Young and Wiedeman show it is obvious to use packet switching and to call them intermediates and thus discloses stations which are termed as "intermediate".

Therefore the examiner contends that the combination of the references does show the argued limitations and the rejection should stand

Appellant's Argument Page 7, Paragraph 2:

The appellant argues that Gupta reference does not teach operating a first central control device in the first radio coverage area and a second central control device in the second radio coverage area, for centrally controlling an assignment of transmission channels assigned to the respective radio coverage area.

The examiner disagrees with the applicant's assertion. Gupta discloses base stations 105 and 110 operating in coverage 101 and 102 respectively thus centrally controlling an assignment of transmission channels.

Therefore the examiner contends that the combination of the references does show the argued limitations and the rejection should stand.

Appellant's Argument Page 8, Paragraph 2:

The appellant argues that Gupta reference does not teach that the first central control device operates (=controls) the second central control device with respect to transmission channels.

The examiner disagrees with the applicant's assertion. According to Merriam-Webster dictionary the word "respective" is defined as particular or separate. Therefore, first central control device only controls an assignment of transmission channel assigned to the first radio coverage area and second

control device only controls an assignment of transmission channel assigned to the second radio coverage area.

Appellant's Argument Page9, Paragraph 2:

The appellant argues that an intermediate station configured for carrying out the method according to claim 10.

The examiner disagrees with the applicant's assertion. Wiedeman teaches a relay station that is positioned within an overlap of at least two satellite coverage areas for relaying a communication from a gateway associated with a first coverage area to a gateway associated with a second coverage area.

Therefore the examiner contends that the combination of the references does show the argued limitations and the rejection should stand.

The appellant argues also that a central control device configured for carrying out the method according to claim 10.

The examiner disagrees with the applicant's assertion. Gupta discloses wherein said relay coordinator is configured to provide said adaptive relay path under direct control of direct control of one of said first and second base stations (see claim 16 of Gupta reference).

Art Unit: 2617

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be maintained.

Respectfully submitted,

Amanuel Lebassi

Examiner, Art Unit 2617

Conferees:

/Amanuel Lebassi/

Examiner, Art Unit 2617

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

/George Eng/

Supervisory Patent Examiner, Art Unit 2617